

PROVISIONAL PATENT APPLICATION

**CUSTOMIZABLE WEB SITE ACCESS
SYSTEM AND METHOD THEREFOR**

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Field of the Invention

The present invention relates to the manner in which a user of the World Wide Web accesses a web site and, more specifically, to a system and method to enable multiple types of navigation, e.g., horizontal navigation, vertical navigation, item navigation, of desirable web sites on the World Wide Web.

Background of the Invention

Currently, global computer network users access web sites by accessing a single-source, static destination, e.g., a single web site address, and navigate vertically through multiple pages at a single destination by selecting navigational links within a web page. Additionally, current search engines provide access to multiple web sites that are directed to only a single topic or interest. As such, those users with diverse interests are still subject to navigating multiple pages at a single destination by the click of a mouse, or different, single-source destinations by the entry of a web address or by the selection of a "favorite" web site. This manner of navigating through diverse web sites is certainly not the most efficient use of the web.

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Thus, for those users with diverse interests or for those users who have the need or the desire to access multiple web site destinations on a consistent basis, there is a need for a web site access system that would provide users with the ability to navigate the web in a variety of customizable manners, e.g., horizontal navigation, vertical navigation, item navigation.

With horizontal navigation, a user would preferably be consistently presented with the web sites in which they are most interested, thereby allowing for more efficient review and

information-gathering from those destinations. With vertical navigation, a user would preferably be presented with a continuing display of web pages from a specific web site, i.e., rather than drilling manually through the pages of a web site by selecting page links, the drilling would be performed automatically without or with less user interaction. With item navigation, the web site address results of a search engine search would preferably be automatically and continuously displayed to a user without requiring the user to select each result and return to the search index for the next result.

Summary of the Invention

The needs described above are in large measure addressed by a customizable web site access system of the present invention. The system generally comprises a host computer that is in communication with a user terminal, which incorporates both a video monitor and a data entry peripheral. The host computer incorporates a processor that executes a program to establish a user's desired manner of accessing various web sites. Specifically, the program executes to automatically establish, or prompt a user to enter/select, a set of desired web sites and to enter a desired display time for each of the entered or selected web sites. The program preferably additionally executes to prompt the user of the system to indicate whether they would like their set of desired web sites to automatically be replayed and/or the number of times the web sites should be replayed. Upon establishing the set of desired web sites, the program executes to display these web sites for the desired display time, in random or sequential order, and for the number of times desired. Alternatively, the user may accept or simply automatically invoke the program defaults.

As indicated above, upon invoking the system of the present invention the program executes to automatically establish, or prompt a user to enter/select, a set of desired web sites.

This set of desired web sites allows the user to navigate through a plurality of web site addresses in one or more manners. Specifically, the user may navigate in a horizontal manner -- a slide show of unrelated/unlinked sites are automatically presented to the user, in a vertical manner -- a slide show of linked web pages from a single web site, or multiple linked web sites, are automatically presented to the user, or in an item manner -- a slide show of web sites as determined by the results of a query are automatically presented to the user.

The system preferably utilizes various screens to establish interaction with the user of the system. Specifically, the system preferably utilizes a data entry screen for entry of user preferences and a display screen that includes a web site display area and a system-interactive user area.

Description of the Drawings

Fig. 1 is a block diagram depicting a customizable web site access system of the present invention.

Fig. 2 is a flow chart depicting the operation of the customizable web site access system of the present invention.

Fig. 3 is an example of a web page for the entry of desired user data to be implemented through the customizable web site access system of the present invention.

Fig. 4 is an example of a header that may be displayed at the top of each web site accessed by the system of the present invention.

Fig. 5 is an example of a horizontal navigation web site address list.

Fig. 6 depicts a typical web site home page incorporating a plurality of links to other web pages within the web site.

Fig. 7 is an example of a vertical navigation web site address list.

Fig. 8 depicts the web site of Fig. 6 wherein the present invention has been invoked, provides a display screen, and presents a slide show of the linked web pages within the web site.

Fig. 9 (pages 1 and 2) depicts a typical search result list of a search performed by a search engine.

Fig. 10 is an example of an item navigation web site address list corresponding to the search results of Fig. 9.

Fig. 11 depicts the search result list of Fig. 9 wherein the present invention has been invoked, provides a display screen, and presents a slide show of the addresses within the search result list.

Detailed Description of the Preferred Embodiments

A customizable web site access system of the present invention allows the experience of a user of the World Wide Web to be flexible -- not dedicated to a single controlling source. Instead of navigating "vertically" through multiple pages at a single destination via a user-activated link, the present system enables users to navigate in many manners across a range of destinations, accessing a single page at each destination. The system of the present invention operates to play a script of the user's desired navigation experience by automatically directing their World Wide Web connection to pre-selected web site addresses for defined time periods.

Fig. 1 provides an overview block diagram of the customizable web site access system 10. As shown, system 10 generally comprises a host computer 12 that incorporates a central processing unit (CPU) 14 and memory 16 (internal or external) for storage of a program 30 that is executed by CPU 14. System 10 additionally incorporates a plurality of user terminals 18, e.g., personal computer, work station, data entry terminal, etc., that are in communication with host

computer 12. Each user terminal preferably includes one or more input peripherals 20, e.g., mouse, keyboard, disk drive, etc., at least one video monitor 22, and other output peripherals 24, e.g. data storage devices, disk drives, etc., as appropriate.

The operation of program 30, as executed by CPU 14, is shown in Fig. 2. As indicated, per input block 302, program 30 preferably prompts the user to enter user registration information through input peripheral 20. The user registration information may be in the form of a name, password, or other type of user identifier. The user registration information is then transferred from user terminal 18 to host computer 12 where it is determined whether the registrant is a new registrant, per decision block 303. If the registrant is new, the new registrant identifier is stored in memory 16, per stored data block 305, and the new registrant is prompted to enter their desired preferences (as described per option one below). If the registrant is not new, the registration identifier is verified, per operations block 304, to determine if the registration data corresponds to previously entered registration data that is stored in memory 16.

If the entered registration data does not correspond to previously entered registration data, per decision block 306, the user is requested to enter their user information again, per input block 302. However, if the entered registration data does correspond to previously entered registration data, per decision block 306, the user is provided with two options: (1) modifying their previously entered desired preferences; or (2) using the previously entered settings, per decision block 318.

Option one follows the left-hand side of the flowchart of Fig. 2 and, as shown, the user is requested to input/modify their desired settings. Specifically, the user is requested to input their desired list of web sites through which they would like system 10 to sequence, per input block 308. The manner of input may be an interactive user interface, e.g., the user enters the list

through a keyboard, or it may be a previously existing text file containing a plurality of web addresses that is retrieved as a parameter list by an automatic operation of program 30. Still another manner of input may be the results list of a search engine or data base query. The results list may be entered as a parameter list by an automatic operation of program 30, e.g., program 30 automatically receives the results list of web site addresses and enters it into the settings of the present invention. Alternatively, the user may accept the default values of system 10, per input block 309. In the preferred embodiment of the present invention, the user is provided with all above-described options for entering a desired list of web site addresses. Of course, numerous other manners of entering a desired list of web site addresses may be used without departing from the spirit or scope of the invention.

Per the flowchart of Fig. 2, the user is also requested to input the desired duration of display for each listed web site, per input block 310, or accept the default values of system 10, per input block 309. Alternatively, the user may enter a default duration to be used with each listed web site.

The user is further requested to enter the number of times they would like system 10 to replay their entered list of web sites, per input block 312, or accept the default values of system 10, per input block 309. Alternatively, the user may simply enter that they wish their entered list of web sites to be continuously replayed. The user is also requested to enter the order in which they would like their entered list of web sites to be displayed, i.e., in sequential order (the order in which the user entered the web sites in their list) or in random order, per input block 314, or accept the default values of system 10, per input block 309. Each of the user-entered preferences is transferred from user terminal 18 to host computer 12 and stored in memory 16, per stored data block 316.

Option two, using the previously entered settings, causes host computer 12 to recall from memory 16 the registrant's settings. Specifically, host computer recalls the list of desired web sites, the duration of display for each web site, the number of times to replay the list, and the order in which the web sites are to be displayed.

5 Either option ultimately results in an automatic navigation of the user's list of desired web sites, per operations block 320. The user is essentially presented with a slide show of the web sites in which they are most interested.

In the preferred embodiment of system 10, the user is prompted to enter their preferences via interaction with a data entry screen 40 that is displayed on the user's video monitor 22. An example of such a data entry screen is shown in Fig. 3. Data entry screen 40 preferably includes a web site list field 42 that allows the user to enter a web site address (URL) and a duration of display in a minute and second format (mm:ss). Data entry screen 40 also preferably includes a default duration field 44 should the user not desire to enter a specific display time for each entered web site address. Data entry screen 40 also preferably includes a replay field 46 to indicate the number of times to replay the list of desired web sites, or to indicate a continuous replay, and preferably includes an order field 48 to indicate sequential or random display. Of course, numerous other manners of obtaining a user's preferences may be used without departing from the spirit or scope of the invention.

20 Upon displaying a user's list of desired web sites, system 10 preferably utilizes a display screen 50 that is presented on the user's video monitor 22. An example of such a display screen is shown in Fig. 4. Display screen 50 includes a web site display area 52 and a system-interactive user area 54. System-interactive user area 54 preferably includes a site field 56, a time remaining field 58, and a replay field 60. System-interactive user area 54 also preferably includes a pause

button 62, a site-forward button 64, a site-backward button 66, an edit options button 68, and a logout button 70.

Site field 56 provides an indication of the total number of web sites within a user's entered list and an indication of the current web site's location within the list, e.g., 4 of 12. Time remaining field 58 provides an indication of how much longer the current web site will be displayed before system 10 displays the next web site. Replay field 60 provides an indication of the requested number of replays for the entered web site list, or whether the replay is to be continuous.

Pause button 62 enables a user of system 10 to stop the sequencing of the list of web sites and maintain the currently presented web site. Site-forward button 64 enables a user of system 10 to go to the next web site in the user-entered list or to go to the very last web site in the list. Site-backward button 66 similarly enables the user of system 10 to go to the previous web site in the user-entered list or to go to the very first web site in the list. Edit options button 68 enables a user of system 10 to re-access data entry screen 40 to modify their entered preferences. Logout button 70 enables a user of system 10 to exit system 10 and return to vertical navigation of web sites. Of course, numerous other manners of interacting with the web site display of system 10 may be used without departing from the spirit or scope of the invention.

Horizontal Navigation

The system 10 and program 30 of the present invention may be used to achieve horizontal navigation of a plurality of web site addresses. An example of a horizontal navigation web site address list, as would be entered into web site list field 42, is provided in Fig. 5. As can be seen, each web site address represents a new and distinct address that would likely be unreachable via

links in the other web site addresses. Thus, without the present invention, each address would have to be entered separately by the user, requiring considerable time. However, with the present invention, the user is essentially presented with a slide show, capable of being stopped at any desired moment, of the web sites in which they are most interested. The user's experience in
5 accessing the World Wide Web becomes analogous to browsing several publications sequentially instead of reading a single publication in its entirety, i.e. accessing a single-source, static-destination web site.

Vertical Navigation

The system 10 and program 30 of the present invention may be used to achieve vertical navigation of a plurality of web site addresses. Fig. 6 depicts a typical web home page wherein numerous links to other pages within the web site are presented to the user, e.g., in the form of buttons 80 or keyword links 82. Upon selecting a link, the corresponding web page address is presented to the user. As such, to reach the various linked pages within the web site and/or to drill through the multiple layers of web pages that may be present in the web site, the user must select the link for each individual page. If a desired web page resides multiple layers of pages from the home page, the user must traverse each intermediate layer before finally reaching the desired web page.

However, upon invoking the present invention, e.g., by selecting the activator 84, the
20 various links within the web site are written to web site list field 42 by automatic operation of program 30, and a slide show presentation of the various pages within the web site may begin. An example of a vertical navigation web site address list, wherein the plurality of links within a single web site are provided, is presented in Fig. 7. Once invoked, the present invention exhibits

display screen 50 to the user, incorporating web site display area 52 and system-interactive user area 54, and presents a slide show of the linked web pages within the web site as depicted in Fig.

8. The user may, of course, pause on any web page desired for any amount of time and then resume the slide show presentation provided by the present invention.

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Item Navigation

The system 10 and program 30 of the present invention may be used to achieve item navigation of a plurality of web site addresses. Item navigation is most applicable to a listing of search results from a World Wide Web search engine or other knowledge base/ data base search program. An example of a typical listing of search results from a search engine is presented in Fig. 9. As shown, each of the results provides a linked web site address 86 and a snippet 88 of the web site containing the search terms from the user's search query. Snippet 88 provides only a minor insight into the actual overall content of the web site. As such, the user must select each link to access the web site for review and determination of relevance to the user's interest. To access yet another search result link, the user must return to the list of search results and select another web site for review; a tedious and time consuming process.

However, upon invoking the present invention, e.g., by selecting the activator 84, the various links within the search result listing are written to web site list field 42 by automatic operation of program 30, and a slide show presentation of the various pages of the search result listing may begin. An example of an item navigation web site address list, wherein the plurality of links corresponds to a list of search results, is presented in Fig. 10. Once the present invention is invoked, the user need not return to the results list to access the next item. Each page is presented automatically, per Fig. 11, wherein display screen 50 incorporating web site

display area 52 and system-interactive user area 54 is presented to the user. The user may, of course, pause on those pages they find interesting and/or relevant, then resume the automated presentation.

5 The present invention may be used to achieve one, two or all and/or a combination of the above-described manners of navigation. Of course, the present invention may be used to implement other manners of navigation without departing from the spirit or scope of the invention.

The present invention may be embodied in other specific forms without departing from the spirit of the essential attributes thereof; therefore, the illustrated embodiments should be considered in all respects as illustrative and not restrictive, reference being made to the appended claims rather than to the foregoing description to indicate the scope of the invention.

FILED 04-24-04